

# BOTANICAL GAZETTE.

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*PRUNUS ALLEGHANIENSIS*, n. sp.—A low shrub with straggling branches, 3 to 5 ft. high, but frequently assuming a tree-form and reaching a height of 12 ft. or more, seldom thorny; leaves oblanceolate to obovate, often long-acuminate, finely and sharply serrate, biglandular at base, softly and finely pubescent when young, glabrate when old, especially on the upper side; umbels 2 to 4 flowered, nearly sessile; pedicels and calyx finely pubescent; pedicels about  $\frac{1}{2}$  an inch long; calyx-tube narrowly obconic, 2 lines long, with the ovate-oblong, obtuse teeth a little shorter; petals round-obovate, 3 lines long; fruit globose-ovoid, under  $\frac{1}{2}$  an inch in the greater diameter and over  $\frac{1}{3}$  in the lesser, very dark purple, covered with a bloom; stone turgid, somewhat obovoid, with a blunt point, a shallow groove on one side and a broad flat ridge on the other.—In Huntingdon County, Pennsylvania, on the limestone bluffs of the Little Juniata, northward through the Barrens, and westward over the Alleghanies as far as the extremity of Boon's Mountain, Elk County, where it was found by the late Mr. McMinn. My attention was first called to this plum, years ago, by my friend, J. R. Lowrie, Esq., of Warriorsmark. From him and Miss N. J. Davis I have received good specimens in flower and fruit, and have also seen and collected it myself in various localities. It produces an abundance of fruit of a pleasant acid taste, known by the name of "Sloes" among the people of the region and sometimes used by them for making pies or preserves. It appears to be exempt from the attacks of the curculio or other insects. Although nearly allied to *Prunus maritima*, Wang., var. b., T. & G. (*P. pygmaea*, Willd.), its remoteness from the sea-board, its habitat on bluffs and mountains, its proportionally narrower and longer decidedly acuminate leaves, its smaller fruit, and especially the character of the stone, seem to entitle it to rank as a distinct species.—THOS. C. PORTER, *Easton, Penn.*

NOTES ON THE ARBOREOUS, ARBORESCENT AND SUFFRUTICOSE FLORA OF OREGON.—*Berberis Aquifolium*, Pursh and *B. nervosa*, Pursh. Both species about equally common in the woods of the lower Cascades; the latter scarcely arborescent above the ground, whilst the former forms a branching bush 2 to 3 feet high. The fruit of both species is used by the inhabitants, and is called in some localities "wild grapes."

*Rhus diversiloba*, T. & G. (*R. lobata*, Hook.) A low spreading bushy species having the fruit of *R. Toxicodendron* and otherwise resembling the upright form of that species.

*Acer macrophyllum*, Pursh. The large leaved maple abounds in many localities but chiefly near streams and in bottoms, attaining 3 feet in diameter, averaging 1 to 2, and from 40 to 70 feet high, but mostly with scrubby, gnarled trunks, affording very little clear lumber. Used in various manufactures and for fuel. Is much more valuable for the latter use than the *Coniferae* and is probably equal to the oak. Though not abundant it is at present extensively used for the purposes mentioned.

*Acer circinatum*, Pursh. The Vine-Maple. So called from the habit of its growth, elongating its trunk without correspondingly increasing the diameter. This causes it to spread or grow horizontally on the ground or in an ascending position. It forms dense thickets on the margins of streams and on wet hill-sides almost inaccessible even to one on foot.

*Pachystima Myrsinites*, Raf. A low, bushy shrub, 1 to 2 feet high, in the Cascades, rather rare.

*Rhamnus Purshiana*, DC. A shrub of 6 feet to a tree 25 feet high and a trunk 4 to 6 inches. Fruits sparingly, not common.

*Ceanothus Oregonus*, Nutt. A shrub 6 to 8 feet high, in thickets on the Willamette River, conspicuous with numerous thyrsi of white flowers in May.

*Ceanothus relutinus*, Dougl. A bushy branching shrub, 2 to 3 feet high, in coniferous woods on the Cascades, not rare.

*Prunus emarginata*, Walpers, var. *mollis*, Brewer (*P. mollis*, Walpers.) The Oregon Cherry. This is a small tree remarkable for its great abundance in many mountain localities. Abounds also, sparingly, in the valleys. It is notable for its straight upright trunks, and for the thickness of its growth on the ground, the full capacity of the soil being monopolized by it over large areas. The trunks, from 1 to 4 or 5 inches in diameter, attain the height of 20 to 40 feet, often so dense that a pedestrian finds it difficult to pass through them. The fruit is small, red and not edible.

*Prunus demissa*, Walpers. A small bush, much resembling *P. Virginiana*, with larger but equally astringent fruit.

*Nuttallia cerasiformis*, Torr. & Gr. A shrub in thickets on the Willamette River, 4 to 6 feet high, bearing fruit in drooping racemes, the size and color of *Amelanchier alnifolia*, but not edible.

*Neillia opulifolia*, Benth. & Hook. (*Spiraea opulifolia*, Linn.) Abundant in the valleys, along streams, forming dense thickets.

*Spiraea discolor*, Pursh., var. *ariaefolia*, Watson (*S. ariaefolia*, Smith.) A shrub ordinarily 6 feet high, but attaining rarely 20 feet, and five inches in diameter. Of straggling growth and very conspicuous and ornamental in woods with its numerous large panicles of white flowers.

*Spiraea Douglasii*, Hook. An abundant shrub, 4 to 8 feet high, forming impenetrable thickets in the low lands of the valleys, highly ornamental in flower, with numerous dense panicles of rose purple flowers. Large areas of the best meadow land of the state are overgrown with this shrub and but little inroads have as yet been made upon its domain by the agriculturalists, its extermination evidently being a work of great difficulty.

*Spiraea Douglasii*, Hook., var. *Menziesii*, Presl. (*S. Menziesii*, Hook.) This is evidently the same as the foregoing, modified in its characters solely by its habitat—when growing in water it becomes the smooth *S. Menziesii*, of Hooker.

*Spiraea betulifolia*, Pallas. A shrub one foot high, on the dry hills of the Cascades, with white flowers, and also subalpine in wet places, 4 feet high, with rose-red flowers. The two forms apparently merit specific distinction, but are united by authors. Both forms are rare and confined exclusively to the habitats mentioned.

*Rosa blanda*, Ait. A species occurring in valleys is referred here with some doubt.

*Rosa Californica*, Cham. & Schlecht. A large species, forming thickets and clumps in the valleys. Grows 10 feet high and fruits abundantly. It is conspicuous in September with its dense clusters of oval pale-red fruit; flowers medium or rather small.

*Rosa Kamtschatica*, Vent. On low wet ground in the valleys, 2 to 4 feet high. Young branches and shoots densely clothed with a brownish pubescence, straight prickles and recurved spines. A strikingly coarse and unattractive species.

*Rosa gymnocarpa*, Nutt. This is the small flowered, small and sparsely fruited species on hills throughout.

*Rosa pisocarpa*, Gray. A recently described species, in wet places in the valleys, flowers medium, fruit very small and in clusters.

*Rubus ursinus*, Cham. & Schlecht. (*R. micropetalus*, Dougl.) On low, rather wet lands and river banks. Low and straggling, frequently trailing over logs and climbing on bushes. This is the blackberry of Oregon. It is in part dioecious or imperfectly di-

œcio-polygamous and is often met with entirely sterile, while other adjacent areas are immensely fruitful. It occurs abundantly in many localities, and affords large quantities of excellent fruit equal in value to our *R. villosus*.

*Rubus lew-dermisi*, Dougl. This is very similar to our *R. occidentalis*; on dry hills in the mountains; fruit somewhat larger and with smaller, less reticulate seeds than our species, and very probably might by cultivation be made to surpass the improved black cap raspberry of the eastern states.

*Rubus spectabilis*, Pursh. This is the "Salmon-berry" of the inhabitants. Grows on the banks of streams, generally in the hilly districts. The fruit is not produced plentifully, but is rather large and juicy, pleasant tasted and sought after to some extent by the inhabitants. When fully ripe it is pale red and transparent. Sometimes it attains 10 to 12 feet high, with stems two inches in diameter.

*Rubus Nutkanus*, Mocino. On hill-sides in open coniferous woods, forming vast thickets, common and unimportant.

*Pyrus ricularis*, Dougl. This is the Oregon Crab-Apple, with fruit in clusters no larger than that of *Viburnum prunifolium*, which it resembles in shape, and when ripe, in September, pale yellow. Not known to be of any economic use. The tree attains 15 to 20 feet and 2 to 4 inches in diameter, and abounds along streams rather sparingly.

*Pyrus sambucifolia*, Cham. & Schlecht. Occurs rarely in the high Cascades. A low bush.

*Cratægus rivularis*, Nutt. A low, spreading, bushy-headed tree or shrub, spiny, with smooth shining leaves. The fruit is abundant and black when mature, in August and September. It abounds along streams and in lowlands, and is so abundant in places as to be a serious impediment to the clearing of the best agricultural lands.

*Cratægus Douglasii*, Lindl. A much rarer, larger tree; in the valleys; with larger, incised, doubly serrate, or sometimes lobed, leaves and strong spines.

*Amelanchier alnifolia*, Nutt. This is the Oregon representative of the eastern "Service Berry"; not attaining to tree proportions so far as observed, fruiting abundantly on low bushes. The fruit when ripe, in August, on the Cascades, is black and highly prized by the mountain residents, being very sweet and pleasant to the taste.

*Ribes Menziesii*, Pursh. In the Cascade Mountains, rare. A low, spreading, bushy species, 3 feet high, remarkable for its large, densely prickly fruit, not available for any economic use.

*Ribes dicaricatum*, Dougl. This is the Oregon representative of the eastern *R. rotundifolium*, much resembling it in mode of growth, in leaf and fruit, and affords the inhabitants a limited supply for tarts, etc.

*Ribes setosum*, Dougl. Wet Alpine woods; a low, spreading bush; fruit prickly and of no value.

*Ribes sanguineum*, Pursh. In the valleys and low hills; a shrub 3 to 6 feet high, highly ornamental in flower, bearing a profusion of large purple spikes in early spring. The fruit is slightly prickly, rather small, and not used as an edible fruit by the inhabitants.

*Ribes bracteosum*, Dougl. A remarkable species on the banks of shady streams in the lower mountains, with immensely large leaves and fruiting racemes sometimes a foot in length. Grows 6 to 8 feet high, with stems an inch in diameter. The peculiar currant odor is exhaled heavily from the plant and its presence can be detected by this alone several yards away. Fruit not edible.

*Ribes aureum*, Pursh. Sandy shores of the Columbia at the Dalles.

*Ribes viscosissimum*, Pursh. Dry rocky hills of the Columbia at the Dalles. Grows in clumps, 4 to 6 feet high.

*Philadelphus Lewisii*, Pursh. A shrub of straggling growth, in open coniferous woods, 6 to 8 feet high, somewhat ornamental in flower.

*Oplopanax horridum*, Smith. A rare, low spreading, densely prickly shrub, like *Aralia spinosa*, and quite as formidable as the latter species to be overcome by the western explorer.

*Cornus pubescens*, Nutt. A shrubby species, in thickets, not attaining to tree proportions, resembling *C. sericea* of the eastern states.

*Cornus Nuttallii*, Audubon. This is the Pacific representative of our *C. florida*. Attains 6 to 8 inches in diameter and 30 to 40 feet high, but generally much smaller and lower, very ornamental in May with its abundant white involucres. It differs from the eastern plant in its large, short peduncles, larger and more fleshy fruit, and its obovate, rather obtuse leaves.

*Sambucus pubens*, Michx. Thickets in the lower Cascades, a low bush and rare.

*Sambucus glauca*, Nutt. This is a tree attaining a foot in diameter, but low and spreading. The fruit when mature, in September, is covered with a dense white bloom, rendering the tree very ornamental, for which purpose it is planted to some extent by the inhabitants. The fruit is abundant.

*Lonicera hispidula*, Dougl. A small vine climbing on bushes, with small whitish and rose colored flowers.

*Lonicera hispidula*, Dougl., var. *vacillans*, Gray. This is in every way a much larger plant, climbing high on trees. It is smoother, with larger leaves and flowers of the same color.

*Lonicera ciliosa*, Poir. A species resembling *L. sempervirens* in mode of growth and leaf, but with larger, orange-red flowers. Would be handsome in cultivation. A scarce species, on banks of streams.

*Lonicera involucrata*, Banks. A shrub 3 to 4 feet high, in wet thickets, with inconspicuous yellow flowers.

*Menziesia ferruginea*, Smith, var. *globularis*, Salisb. A low straggling bush in wet Alpine woods.

*Gaultheria Shallon*, Pursh. A low shrub 1 to 2 feet high, often forming dense thickets in coniferous woods, with spikes of whitish and rose-purple flowers overtopping the leaves. It is very ornamental.

*Gaultheria Myrsinites*, Hook. This is a small species with inconspicuous flowers, in the high Cascades, 6 inches high.

*Arbutus Menziesii*, Pursh. This is a tree 30 or 40 feet high and 6 inches in diameter, quite rare in Oregon. It is notable in woods from its smooth, reddish-brown bark and large panicles of berries the size of peas.

*Arctostaphylos Uva-ursi*, Spreng. Abundant on the coast hills and generally distributed.

*Arctostaphylos tomentosa*, Dougl. A strong growing, straggling bush, 2 to 5 feet high, in the high Cascades forming dense clumps.

*Arctostaphylos pungens*, HBK. A lower shrub, with smaller leaves and flowers. Same habitat.

*Vaccinium cæspitosum*, Michx., var. *angustifolium*. A low bush 6 inches to a foot high, in low bushy plains, fruiting abundantly. This is the black huckleberry of the country and is much sought after by the inhabitants.

*Vaccinium uliginosum*, L. On the coast in sphagnum swamps, area limited, of little importance to the country.

*Vaccinium ovalifolium*, Smith. A straggling bush 4 feet high, in the Alpine woods of the Cascades. Fruits sparingly and is unimportant.

*Vaccinium parvifolium*, Smith. This is the red huckleberry of the region, and is a bush 3 to 6 feet high, in the lower mountains along streams and thickets in woods. The fruit though not abundant is rather large, sweet and pleasant to the taste. The limbs and branches are angled and of a beautiful green color and glossy.

*Vaccinium Myrtilloides*, L., var. *microphyllum*, Hook. A straggling bush 4 to 6 feet high, in the Alpine woods of the Cascades, rare, fruit scarce and unimportant.

*Vaccinium ovatum*, Pursh. Sand hills on the coast. A shrub 1 to 3 feet high, abundant and exceedingly fruitful. Large quantities of the fruit are collected by the Indians and sold to the inhabitants, but it is inferior in quality to that of other species.

*Rhododendron Californicum*, Hook. A large shrub in subalpine woods of the Cascades, 4 to 10 feet high, bearing large flowers, very ornamental.

*Rhododendron albiflorum*, Hook. A rare shrub, 3 feet high, in the Alpine woods of the Cascades, with inconspicuous flowers.—ELIHU HALL, *Athens, Ill.*

[To be continued.]

✓ BRYOLOGICAL NOTES BY C. F. AUSTIN.—*CERATODON MINOR*, *n. sp.*—Facile dignoscitur a *C. purpureo*, cui cæterum simillimus, statura minore, foliis ob costam longissime excurrentem aristatis, pedicello tenuiore, capsula brevior, peristomii dentibus angustioribus levioribus solum inframedium articulatis et (angustissime) marginatis.

West of the Frazer River, June 5th, 1875, *Macoun*.

Nearest to *C. purpureus*, var. *aristatus* AUST. *Musc. Appalach.*, n. 117; but that is more robust; with longer stems; leaves with the stouter costa not so long excurrent; color of the whole plant paler (pedicel and capsule yellowish), and with the peristome as in the typical form.

In *C. MINOR* the stems are about 2 lines high. The very slender pedicel and shining capsule are of a dark red color. The annulus and operculum are about as in *C. purpureus*. The peristomal teeth are nearly of the same length but much narrower and neither articulated nor margined above the middle, very narrowly margined and with only about half as many articulations and but 2 or 3 cross-bars below the middle. Inflorescence as in *C. purpureus*.

*CRYPHEA RAVENELII*, *n. sp.*—Plantæ humilis sordido-virides; caule vix unciam longo julaceo subarcuato subsimplici, foliis siccitate appressis in humido apertis rotundovatis concavis obtusiusculis opacis, margine plano integerrimo versus apicem subincurvo, dorso minutissime papilloso, costa validiuscula supra medium procedente apice subflexuosa et sæpe inequaliter bierura, reti obscuro granuloso minuto uniformiter brevi; ramulis fructifris brevissimis secundis, foliis perichætalibus pallidis arcte convolutis tenuis abrupte breviter acuminatis, costa tenui longe infra apicem evanida, capsula fere sessili ovali solidiuscula ore limbo lato solidissimo rubro circumcincta, peristomii dentibus 8 rubris solidis e basi lata subulato-filiformibus siccitate erecto-incurvis in humido erecto-adpressis valde noduloso-articulatis in medio linea divisurali notatis pertusisque, ciliolis nullis, calyptra operculo annuloque haud visis: florescentia *C. glomerata*.

Rome, Georgia, *Ravenel*.

Resembles *C. glomerata*, but is readily distinguished by its obtusish opaque granulose leaves not squarrose when moist, by its shorter and less abruptly pointed perichætal leaves not costate to the apex, by its shorter and more solid capsule with a broad solid rim and without a persistent annulus, by its solid red peristomal teeth erect-adpressed when moist (slightly spreading in *C. glomerata*) and by the want of an inner peristome.

*BARBULA RAVENELII*, *n. sp.*—Plantæ parvæ sordido-flavescentes cæspitosæ rigidæ; caule 2-3 lineas longo erecto simplici, foliis siccitate crispis ovato et lanceolato-oblongis subearinatis obtusiusculis et obtusis pro more minutissime apiculatis, apiculo paululum recurvo, margine infra medium angustissime recurvo, costa terreti percurrente, reti minuto haud granuloso basilari paulum majore et laxiore; cætera desunt.

On the earth, Georgia, *Ravenel*.